What is claimed is:

1. An electrosurgical system comprising:

a radio frequency generator,

an electrosurgical instrument, and

a fluid enclosure within a natural body cavity of a patient,

the fluid enclosure being sealed around a portion of a patient's body within the cavity which is to be removed and containing an electrically-conductive fluid surrounding the portion of the patient's body to be removed,

the generator having a radio frequency output for delivery of power to the electrosurgical instrument when immersed in the electrically-conductive fluid,

the electrosurgical instrument having an electrode assembly at the distal end thereof, the electrode assembly comprising a tissue treatment electrode and a return electrode longitudinally spaced therefrom so that, in use, the conductive fluid completes an electrical circuit between the tissue treatment electrode and the return electrode,

wherein the fluid enclosure includes at least one open end through which the electrosurgical instrument is insertable into the fluid enclosure, and through which the electrically-conductive fluid is inserted and removed from the enclosure.

2. An electrosurgical system according to claim 1 wherein the fluid enclosure includes a distal open end surrounded by an adjustable loop that can be tightened and a proximal open end for inserting the electrosurgical instrument into the fluid enclosure.

3. An electrosurgical system according to claim 2 wherein the loop is a resilient band extending around the edge of the distal open end.

4. An electrosurgical system according to claim 2 wherein the loop is a drawstring arrangement that can be tightened and released.

5. An electrosurgical system according to claim 1 wherein the tissue treatment electrode has at least a portion extending laterally with respect to a longitudinal axis of the electrosurgical instrument.

6. An electrosurgical system according to claim 5 wherein the electrosurgical instrument includes means for rotating the tissue treatment electrode with respect to the longitudinal axis.

7. An electrosurgical system according to claim 1 wherein the electrosurgical instrument includes a shaft with a hollow interior connected to a transverse tubular member which is connected to a suction pump so as to constitute a suction/exhaust port.

8. An electrosurgical system according to claim 1 wherein the tissue treatment electrode includes a hook-shaped end portion located at the end of a rod.

9. An electrosurgical system according to claim 1 wherein the generator produces a pulsed radio frequency output signal having a peak-to-peak voltage of about 600V to 1,250V and a duty cycle of about 50%.

10. An electrosurgical system according to claim 2 further comprising an endoscope that is inserted through the proximal open end of the fluid enclosure into the fluid enclosure.

11. An electrosurgical system according to claim 2, wherein the fluid enclosure includes a second proximal opening for insertion of an endoscope into the fluid enclosure.

12. An electrosurgical system comprising:

a radio frequency generator,

an electrosurgical instrument, and

a sealing means,

the generator having a radio frequency output for delivery of power to the electrosurgical instrument when immersed in an electrically-conductive fluid,

the electrosurgical instrument having a longitudinal axis and an electrode assembly at the distal end thereof, the electrode assembly comprising a tissue treatment electrode and a return electrode spaced therefrom so as to define, in use, a conductive fluid path that completes an electrical circuit between the tissue treatment electrode and the return electrode,

wherein the sealing means is adapted to create a fluid enclosure within a natural body cavity such that a portion of a patient's body which is to be removed is within the fluid enclosure, and wherein the sealing means includes at least one port through which the electrosurgical instrument is insertable, and through which the electrically-conductive fluid can enter and/or leave the enclosure.

13. An electrosurgical system according to claim 12 wherein the tissue treatment electrode has at least a portion extending laterally with respect to the longitudinal axis of the electrosurgical instrument.

14. An electrosurgical system according to claim 12 wherein the instrument includes means for rotating the tissue treatment electrode with respect to said longitudinal axis.

15. An electrosurgical system according to claim 12 wherein the return electrode is axially spaced from the tissue treatment electrode in the direction of the said longitudinal axis.

16. An electrosurgical system according to claim 12 wherein the sealing means includes a distal open end surrounded by an adjustable loop that can be tightened and a proximal open end that is the at least one port for inserting the electrosurgical

instrument into the fluid enclosure.

17. An electrosurgical system according to claim 16 wherein the loop is a resilient band extending around the edge of the distal open end.

18. An electrosurgical system according to claim 16 wherein the loop is a drawstring arrangement that can be tightened and released.

19. An electrosurgical system according to claim 12 wherein the electrosurgical instrument includes a shaft with a hollow interior connected to a transverse tubular member which is connected to a suction pump so as to constitute a suction/exhaust port.

20. An electrosurgical system according to claim 12 wherein the tissue treatment electrode includes a hook-shaped end portion located at the end of a rod.

21. An electrosurgical system according to claim 12 wherein the generator produces a pulsed radio frequency output signal having a peak-to-peak voltage of about 600V to 1,250V and a duty cycle of about 50%.

22. An electrosurgical system according to claim 21 further including an electrode temperature sensing arrangement that reduces the duty cycle of the pulsed radio frequency output signal when the temperature of the tissue treatment electrode reaches a predetermined level.

23. An electrosurgical system according to claim 16 further comprising an endoscope that is inserted through the proximal open end of the fluid enclosure into the sealing means.

24. An electrosurgical system according to claim 16, wherein the fluid enclosure

includes a second proximal opening for insertion of an endoscope into the sealing means.

25. An electrosurgical system for removing tissue from within a natural body cavity, the electrosurgical system comprising:

means for enclosing, in a substantially fluid-tight manner, a space in the body cavity within which the tissue to be removed is located,

means for delivering electrically-conductive fluid to the enclosing means whereby the tissue to be removed from the body cavity is surrounded by the electrically-conductive fluid,

means for generating a radio frequency oscillating voltage output across first and second output terminals,

means manipulated within the enclosing means for electrosurgically vaporizing and morcellating the tissue to be removed from the body cavity, the electrosurgical means including:

means connected to the first output terminal for treating tissue electrosurgically,

means connected to the second output terminal for completing an electrical return path through the electrically-conductive fluid, and

means for removing from the enclosing means electrically-conductive fluid and vaporized and morcellated tissue.

26. An electrosurgical system for removing the fundus and body of a uterus from within the peritoneal cavity of a patient, the electrosurgical system comprising:

means for enclosing, in a substantially fluid-tight manner, a space in the peritoneal cavity within which the fundus and body to be removed are located,

means for delivering electrically-conductive fluid to the enclosing means whereby the fundus and body to be removed from the body cavity are surrounded by the electrically-conductive fluid,

means for generating a radio frequency oscillating voltage output across first

and second output terminals,

means manipulated within the enclosing means for electrosurgically vaporizing and morcellating the fundus and body, the electrosurgical means including:

means connected to the first output terminal for treating tissue electrosurgically,

means connected to the second output terminal for completing an electrical return path through the electrically-conductive fluid, and

means for removing from the enclosing means electrically-conductive fluid and vaporized and morcellated uterine tissue.

27. An electrosurgical system according to claim 26 wherein the enclosing means includes a distal open end surrounded by an adjustable loop that can be tightened and a proximal open end for inserting the electrosurgical means into the enclosing means.

28. An electrosurgical system according to claim 27 wherein the loop is a resilient band extending around the edge of the distal open end.

29. An electrosurgical system according to claim 27 wherein the loop is a drawstring arrangement that can be tightened and released.

30. An electrosurgical system according to claim 26 wherein the electrosurgical means includes a shaft with a hollow interior connected to a transverse tubular member which is connected to a suction pump so as to constitute a suction/exhaust port.

31. An electrosurgical system according to claim 26 wherein the tissue treatment means includes a hook-shaped end portion for morcellating tissue.

32. A method of removing tissue from within a natural body cavity using an electrosurgical system comprising:

an electrosurgical generator for generating a radio frequency oscillating voltage output across first and second output terminals,

an electrosurgical instrument having a longitudinal axis, the electrosurgical instrument including a tissue treatment electrode connected to the first generator output terminal, and a return electrode connected to the second generator output terminal,

fluid delivery means for delivering electrically-conductive fluid to the body cavity,

the method including the steps of:

enclosing, in a substantially fluid-tight manner, a space in the body cavity within which the tissue to be removed is located, and within which at least the tissue treatment electrode is located,

operating the fluid delivery means to fill at least partly the space with electrically-conductive fluid,

operating the generator to apply a radio frequency voltage between the tissue treatment and return electrodes, and completing at least a part of a conduction path between the electrodes using the electrically-conductive fluid, and

manipulating the electrosurgical instrument in the vicinity of the tissue to be removed from the body cavity.

33. A method according to claim 27 wherein the tissue treatment electrode has at least a portion extending laterally with respect to the longitudinal axis of the electrosurgical instrument, wherein the electrosurgical instrument further comprises drive means for rotating the tissue treatment electrode about the longitudinal axis, and wherein the method further comprises the step of operating the drive means to rotate the tissue treatment electrode about the longitudinal axis.

34. A method of removing at least the fundus and body of the uterus of a patient using an electrosurgical system comprising:

an electrosurgical generator adapted to generate a radio frequency oscillating

voltage output across first and second output terminals,

an electrosurgical instrument having a longitudinal axis, the electrosurgical instrument including a tissue treatment electrode connected to the first generator output terminal, and a return electrode connected to the second generator output terminal, and

fluid delivery means for delivering electrically-conductive fluid,

the method comprising the steps of:

enclosing, in a substantially fluid-tight manner, the body and fundus of the uterus of the patient, and within which at least the tissue treatment electrode is located,

operating the fluid delivery means to fill at least partly the body and fundus enclosure with electrically-conductive fluid,

operating the generator to apply a radio frequency voltage between the tissue treatment and return electrodes, and completing at least a part of a conduction path between the electrodes using the electrically-conductive fluid, and

manipulating the electrosurgical instrument to remove at least the fundus and the body of the uterus.

35. A method according to claim 34 wherein the tissue treatment electrode has at least a portion extending laterally with respect to the longitudinal axis of the electrosurgical instrument, and drive means for rotating the tissue treatment electrode about the longitudinal axis, and the method includes the additional step of operating the drive means to rotate the tissue treatment electrode about the longitudinal axis.

36. A method according to claim 34 including the further initial step of dissecting the uterus from other pelvic structures such as the ovaries, broad ligaments, and round ligaments.

37. A method for removing the fundus and body of a uterus from within the peritoneal cavity of a patient, the method comprising the steps of:

enclosing, in a substantially fluid-tight manner, a space in the peritoneal cavity

within which the fundus and body to be removed are located,

delivering electrically-conductive fluid to the enclosing means whereby the fundus and body to be removed from the body cavity are surrounded by the electrically-conductive fluid,

generating a radio frequency oscillating voltage output across first and second output terminals,

using the radio frequency oscillating voltage output within the enclosure to electrosurgically vaporize and morcellate the fundus and body, and

removing from the enclosure electrically-conductive fluid and vaporized and morcellated uterine tissue.

38. A method according to claim 37 wherein the step of electrosurgically vaporizing and morcellating the fundus and body is performed using an electrosurgical means comprising means for treating tissue electrosurgically and means for completing an electrical return path through the electrically-conductive fluid to the radio frequency oscillating voltage output.

39. The method according to claim 38 wherein the step of enclosing, in a substantially fluid-tight manner, a space in the peritoneal cavity within which the fundus and body to be removed are located, is performed using an enclosing means comprising a distal open end surrounded by an adjustable loop that can be tightened and a proximal open end for inserting the electrosurgical means into the enclosing means.

40. The method according to claim 39 wherein the loop is a resilient band extending around the edge of the distal open end.

41. The method according to claim 39 wherein the loop is a drawstring arrangement that can be tightened and released.

42. The method according to claim 38 wherein the electrosurgical means includes a

shaft with a hollow interior connected to a transverse tubular member which is connected to a suction pump so as to constitute a suction/exhaust port.

43. The method according to claim 38 wherein the tissue treating means includes a hook-shaped end portion for morcellating tissue.